

VENABLE
ATTORNEYS AT LAW

September 12, 2000

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Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
TW-A325
445 12th Street SW
Washington, DC 20554

Re: NPRM Regarding Ultra Wideband Transmission, ET Docket 98-153 /

Dear Ms. Salas:

I am writing with respect to the Matter of Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems. I urge the Agency to expeditiously complete this rulemaking.

I am former official in the Department of Commerce. While at Commerce, my responsibility focused on export controls of U.S.-origin products and technology. Since 1986, I have practiced law with an emphasis on the export, and international transfer of U.S.-origin products and technologies. I am very familiar with the effects that prolonged regulatory activity can have on timely development in this country of commercial applications of new technologies. A lengthy rulemaking can contribute to the migration of commercial applications of new technology from this country to foreign countries.

Ultra-wideband is a young technology. However, to date, a great many applications for it have already been identified. The range of potential applications continues to grow. The Agency has recognized this fundamental fact and has stated that:

We believe that UWB technology holds promise for a vast array of new or improved devices that could have enormous benefits for public safety, consumers and business. Further, we anticipate the UWB technology could create new business opportunities for manufacturers, distributors and vendors that will enhance competition and the economy. UWB technology may also enable increased use of scarce spectrum resources by sharing frequencies with other services without causing interference. It is important that we find ways to encourage the development and deployment of technologies that may allow more efficient use of the spectrum.

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NPRM ET Docket 98-153 released May 11th, 2000 at Page 4. The NPRM specifically addressed the issue of potential applications of UWB Technology. In this connection, the Agency observed:

The comments described a wide assortment of existing potential applications for UWB Technology that employed radar principles. Several parties note that UWB Technology has been in use for some time for ground penetrating ("GPR") applications. GPR devices are used for purposes such as: determining the structural soundness of bridges, roadways and airport runways; locating buried containers that may contain hazardous wastes; determining the location of underground utilities, such as natural gas, electricity, water and sewage lines, irrespective of the composition of the piping or conduits; geological surveys; archeological digs; and law enforcement and forensic investigations.

UWB technology is currently being developed for new types of imaging systems that will enable police, as well as fire and rescue personal, to locate persons hidden behind walls or under debris in situations such as hostage rescues, fires, collapsed buildings or avalanches. Imaging devices that use the Technology can also greatly benefit the construction industry by allowing power tools such as nail guns to immediately identify studs, electric wires, and pipes. The potential commercial applications of UWB are too numerous to list. As the Agency stated:

Numerous other applications for UWB technology radar techniques were brought to our attention. Potential automotive uses include forward looking and lane change collision avoidance systems, potential automotive backup warning systems, airbag proximity measurement for safe deployment, sensors that detect bumps in the road and automatically adjust suspension systems, and fluid level detectors for radiator, oil, and gas levels. Potential medical uses include the development of a mattress-installed breathing monitor to guard against Sudden Infant Death Syndrome, and heart monitors that act like an electrocardiogram except they measure the heart's actual contractions instead of its electrical impulses. Some potential home safety uses include intrusion detection systems that are less susceptible to false alarms and space heaters that turn themselves off when a child comes nearby. Other interesting UWB applications include liquid level sensors and everything from water conserving toilets to oil refinery tanks and the use of UWB technology to allow autofocus cameras to calculate distances more accurately.

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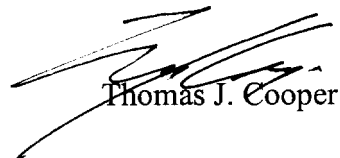
NPRM at Page 5.

It is hardly surprising that UWB has been "born and nurtured" in this country which is the home, and has been the home, for so much "state of the art" technology. The potential, already recognized by the Agency, for applications of UWB in turn have a potential to generate thousands of new jobs and millions of dollars in exports from this country. Benefits from the wider use of UWB technology also will include increased productivity of US industry, particularly in health care and manufacturing.

I respectfully submit that failure by the Agency to expeditiously complete this rule making could result in this new industry finding a home overseas. In fact, there are precedents for this result that should not be repeated. One such precedent involved cellular phone technology developed in this country by Bell Laboratories, but delayed for years by the Agency, which contributed to the result that today such firms as Nokia and Erricson, rather than U.S. companies, dominate international markets in this area. From my perspective as a former trade official, and a lawyer concerned with technology transfer issues, I have seen this happen and hope that it does not happen in this instance. Expeditious completion of the rulemaking could help avoid such a result.

Thank you for your attention to these comments.

Very truly yours,



Thomas J. Cooper

TJC/nem
Enclosures
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